

Abstract

A submersible gas compressor is described which has a ceramic high pressure piston in contact with a ceramic sleeve, a drive piston mounted to the ceramic high pressure piston and a crank in mechanical connection with the drive piston. The submersible gas compressor can be used as a second stage compressor in a gas delivery system that includes a first stage low pressure compressor, an absorption bed containing molecular sieve material, a second stage compressor to pressurize a gas stream to a pressure between 5000 and 10,000 psig, a cascade system for storing the pressurized gas stream between 3500 and 5000 psig, a control system, and an outlet for delivering the pressurized gas stream.